

NSR Equivalency Determination Issues

The District's existing Regulation XIII evaluates whether there will be an emissions increase from a physical change or change in operations by comparing the pre-change potential to emit of a unit with the post-change potential to emit, ("potential-to-potential test") for modifications except for sources that have not undergone NSR before. (Rule 1306(d)(2).) This test applies both for offsets and BACT applicability. (Rule 1306(d).) Prior to EPA's NSR Reform in December 2002, EPA's regulations called for an "actual-to-potential" test, except for electric steam generating units, for determining NSR applicability. 67 Fed. Reg. 80,186, 80,188 col. 2. (Dec. 31, 2002). EPA's NSR Reform adopted a new test for modifications which compares past actual emissions to projected future actual emissions after the physical or operational change (actual-to-future-actual test). 67 Fed. Reg. at 80,189 col. 2.

New units must still use an actual - (i.e., zero) - to- potential test. 67 Fed. Reg. at 80,190 col. 2. (For new units the test is zero-to-potential under either the District's test or EPA's test.) Replacement units, however, although new, can use the actual-to-projected-future actual test since there is enough historical data to project future actuals. 67 Fed. Reg. 80,194 col. 3.

Moreover, under EPA's NSR Reform, sources can still choose to use the former actual-to-potential test for modifications. 67 Fed. Reg. at 80,189 c2. Therefore, the District may continue to use its existing test for modifications of sources that have never undergone NSR, because the test for these sources is actual-to-potential. (Rule 1306(d)(2)(B).)

EPA's NSR Reform explained that the new applicability test would not be used for determining the amount of offsets required. Once a change is determined to result in an emissions increase, using the new test, offsets must be provided, if any applicable threshold is exceeded, by using the old actual-to-potential test. 67 Fed. Reg. at 80,190 col. 3.

It is well settled in EPA's guidance and prior SIP revision approvals that EPA can approve an alternative method of accounting for required emission offsets by using a system that ensures sufficient offsets will be supplied to be equivalent to what EPA regulation would otherwise require. See for example EPA approval of Rule 1315, 77 Fed. Reg. 31,200 (May 25, 2012). Therefore, the District's proposed new offset bank for sources over 4 tpy of NO_x can be drafted to ensure adequate offsets are supplied on an overall basis using an actual-to-potential test for offsets, once a modification is identified.

In its NSR Reform, EPA explained that states may meet the requirements of EPA's NSR program with different but equivalent regulations. 67 Fed. Reg. at 80,241 col. 2. Thus, if a state does not wish to implement any of the new applicability requirements, the state will need to show that its program is at least as stringent as the revised EPA program. *Id.* Thus, EPA left open the possibility of not adopting its recommended applicability test for modifications. As noted earlier, the District program complies for new sources because the test is zero to potential under either program, and for modifications of pre-NSR sources because it uses actual-to-potential, which EPA still allows. Thus the District will only need to show equivalency with the new applicability test for post-NSR modifications.

Some features of the NSR Reform test demonstrate that it is less different from a potential-to-potential test than might otherwise be assumed. First, the pre-modification actual emissions, or “baseline actual emissions” is calculated by looking at any consecutive 24-month period in the last 10 years. 67 Fed. Reg. at 80,189 col. 2. In order to minimize its calculated increase, the source will have the incentive to use the highest 24-month period in the last 10 years as the baseline actual emissions. The Federal Reserve’s most recent annual capacity utilization report still shows that industrial sources generally operate at about 80% of capacity. While capacity is not exactly the same as emissions, the ability to use the highest 24 months in the last 10 years increases the likelihood that the unit’s baseline actuals will approach its potential to emit, most likely being at least 80% of its potential to emit.

Second, in calculating the projected future actual emissions, the source is allowed to subtract projected future emissions from the unit that it could have accommodated before the change, and that are unrelated to the change (the so-called “demand growth” exclusion). 67 Fed. Reg. 80,192 col. 1-2. The projection of future actual emissions uses the maximum actual emissions projected in the next 5 years, 67 Fed. Reg. at 80,196 col. 2, or if the change increases the design capacity, then the next 10 years. 67 Fed. Reg. at 80,197 col. 1.

Under certain scenarios, it is likely that the potential-to-potential test will be just as stringent as the actual-to-projected future actual test. Consider a source whose current PTE is 100 tpy, and its past actuals are 80 tpy, and after the modification its PTE is still 100 tpy, but its projected future actuals are 100 tpy. Under the PTE-to-PTE test, the increase is zero. But under the actuals-to-future-actuals test, the source is likely to claim that before the change, it could have accommodated the additional 20 tpy, which is due to demand growth, within its existing PTE, and so can subtract 20 tpy from its future actuals, leading to a calculated increase of zero. If some physical limitation prevented the source from reaching the 100 tpy pre-modification, then its pre-modification PTE would not be 100 tpy. There would, therefore, be an increase in the unit’s PTE as well as in its actual emissions.

If, on the other hand, the source increases its capacity, and increases its utilization rate, it may still result in a smaller increase under the actual-to-actual test than under the PTE-to-PTE test. Consider a source whose actual emissions are 70 tpy and PTE is 100. The actuals are 70% of the potentials. The source wants to increase its actuals to 112. It increases its capacity so that its post-modification PTE is 140. Its post modification actuals are 112 or 80%. But in calculating its future actuals, it subtracts the difference between 70 tpy and 100 tpy or 30 tpy (amount it could have accommodated pre-modification). So it uses 82 tpy as its projected future actuals. The actual-to-actual test results in an increase of 12 tpy, while the PTE-to-PTE test results in an increase of 40 tpy. If the source lowers its PTE to 112 (future emissions including demand growth) the PTE-to-PTE increase is at least as great as the actuals to actuals, (i.e., 12 tpy). For replacement equipment, SCAQMD generally considers it to be “new” equipment, which is thus measured by the actual-to-potential test, (i.e., zero-to-potential). This is more stringent than NSR Reform, which allows an actual-to-future actual test. 67 Fed. Reg. 80,194 col. 3.

In summary, based on this analysis, the PTE-to-PTE test is likely to be at least as stringent as the actual-to-future actual test in most cases. This is due to (1) the fact that the pre-modification actual emissions, given the 24 months-in-10 year calculation, will likely be very close to a pre-modification PTE, and (2) future actual emissions will always be less than the PTE, and perhaps significantly less given the demand exclusion. Thus, the emissions difference will almost always be lower under the actual-to-actual test.